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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,005	04/12/2001	Douglas A. Hardy	GE04591	9509
7590 Stanley A. Schlitter JENNER & BLOCK, LLC One IBM Plaza Chicago, IL 60611		04/19/2007	EXAMINER SHIFERAW, ELENI A	
			ART UNIT 2136	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/833,005

Applicant(s)

HARDY ET AL.

Examiner

Eleni A. Shiferaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20,23-25 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20,23-25 and 28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Status

1. Claims 1-20, 23-25, and 28-30 are pending.
2. Applicant presently cancels claims 21-22 and 26-27.
3. The indicated allowability of claims 21-25 and 26-30 are withdrawn in view of the newly discovered reference(s) to Nakamura et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1.

Merrick discloses a method for enabling encryption and decryption of an initial version of a software product (col. 2 lines 26-54) comprising the steps of:

generating a first encryption key (fig. 1 element 40; *full key/full-length key of N/N bits*);

encrypting the initial version of the software product with said first encryption key to generate an encrypted initial software product (col. 2 lines 26-27 and claim 1; *encrypting data using key of length N*);

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splitting said first encryption key into first and second key portions (col. 2 lines 47) by (i) generating a first key portion of said first encryption key (fig. 1 element 30 and col. 5 lines 6; short key/first key/n bits); and (ii) calculating a second key portion by utilizing said first key portion and said first encryption key to generate said second key portion of said first encryption key such that the combination of said first key portion and second key portion form said first encryption key (col. 5 lines 6-11);

providing said first key portion and said second key portion and said encrypted initial software product for use in a hardware product (col. 5 lines 33-52);

combining said first key portion and said second key portion to provide said first encryption key in said hardware product (col. 5 lines 33-52); and

utilizing said first encryption key to decrypt said encrypted initial software product in said hardware product (col. 5 lines 33-52 and claims 1, 6-7).

Merrick fails to disclose the first key portion is independent of information identifying said hardware product. However it is very well known to generate a key from identifying information independent from hardware product. Nakamura et al. discloses generating encryption key 3, and key 1 from password which is independent of identifying information from hardware product (see Nakamura et al. col. 18 lines 50-61, col. 19 lines 37-59, fig. 12 & 13, claim 11, col. 6 lines 38-39, and col. 3 lines 20-22) and also generating encrypting key based on random number information and encryption key 2 is disclosed on (col. 2 lines 52-59 and col. 14 lines 13-19).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Nakamura et al. within the system of Merrick

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because they are analogous in data encryption. One would have been motivated to incorporate the teachings of Merrick because it is known at the time of the invention and would generate the key based on key information, and/or password information so the generated key would identify the key or password of the user rather than the hardware name/serial number.

Regarding claim 2, the references disclose the method wherein said step of generating a first encryption key utilizes a random number generator to generate said first encryption key (Merrick col. 5 lines 5-16, Nakamura et al. col. 13 lines 51-57).

Regarding claim 3, Merrick discloses the method wherein said step of calculating a second key portion utilizing an "exclusive or" logic operation to combine said first key portion and said first encryption key to calculate said second key portion (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an "exclusive or" logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of exclusive or within the combination system to combine the first encryption key and first key portion because operator exclusive or necessary for combining. One would have been motivated to do so to combine the first splitted portion of the key with the encryption key/decryption key.

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Regarding claim 4, Merrick discloses wherein said step of combining said first key portion and said second key portion utilizes an “exclusive or” logic operation to combine said first key portion and said second key portion to provide said first encryption key (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an “exclusive or” logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of exclusive or within the combination system to combine the first encryption key and first key portion because operator exclusive or necessary for combining. One would have been motivated to do so to combine the first splitted portion of the key with the encryption key/decryption key.

Regarding claim 23 Nakamura et al. further discloses the method wherein said first key portion is generated independent of information generated in or by said hardware product (see Nakamura et al. col. 18 lines 50-61, col. 19 lines 37-59, fig. 12 & 13, claim 11, col. 6 lines 38-39, and col. 3 lines 20-22). The rational for combining are the same as claim 1 above.

Regarding claim 24 Nakamura et al. further discloses the method wherein said second key portion is generated independent of said hardware product and any information specific to, identifying, or generated in or by said hardware product (see Nakamura et al. col. 18 lines 50-61,

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col. 19 lines 37-59, fig. 12 & 13, claim 11, col. 6 lines 38-39, and col. 3 lines 20-22). The rational for combining are the same as claim 1 above.

Regarding claim 25 Nakamura et al. further discloses wherein said first encryption key is generated independent of said hardware product and any information specific to, identifying, or generated in or by said hardware product (Nakamura et al. col. 2 lines 52-59 and col. 14 lines 13-19). The rational for combining are the same as claim 1 above.

6. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1 and further in view of Kitajima et al. (Kitajima, Patent No.: US 6,823,069 B1).

Regarding claim 5, Merrick and Nakamura et al. teach the method further enabling of said first encryption key to provide a second encryption key to secure a different version of the initial software product, further comprising the steps of:

generating the second encryption key (Merrick fig. 1 element 40; *full key/full-length key of N/N bits*);

encrypting the different version of the initial software product with the second encryption key to provide an encrypted different version of the software product (Merrick col. 2 lines 26-27 and claim 1; *encrypting data using key of length N*);

combining the first encryption key and the second encryption key to provide a third key portion (Merrick col. 5 lines 33-52);

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installing said third key portion and the encrypted different version of the software product in said hardware product (Merrick col. 5 lines 5-52);

combining said third key portion and said second key portion to generate a fourth key portion in said hardware product (Merrick col. 5 lines 33-52);

combining the first key portion and the fourth key portion to provide said second encryption key in said hardware product (Merrick col. 5 lines 33-52); and

using the second encryption key to decrypt the encrypted different version of the software product (Merrick col. 5 lines 33-52 and claims 1, 6-7).

Merrick and Nakamura et al. fail to teach an update of the keys.

However Kitajima discloses dividing encrypting key into a first half portion and a second half portion and periodically updating/changing keys and encryption algorithm to securely protect cryptograms against unauthorized people (col. 11 lines 1-10).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of updating keys within the combination system because it would allow a secure data/message/information transmission (col. 11 lines 1-10). One would have been motivated to update the encryption key and the key portions to enhance security by making the keys unpredictable.

As per claim 6, references disclose the method wherein said step of generating a second encryption key utilizes a random number generator to generate said first encryption key (Merrick col. 5 lines 5-16, Nakamura et al. col. 13 lines 51-57).

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Regarding claim 7, Merrick discloses the method wherein said step of combining the first encryption key and the second encryption key utilizes an "exclusive or" logic operation to combine said first encryption key and said second encryption key to generate said third key portion (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an "exclusive or" logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of exclusive or within the combination system to combine said first encryption key and said second encryption key and generate said third key portion because operator exclusive or necessary for combining. One would have been motivated to do so to combine first encryption key and said second encryption key.

Regarding claim 8, Merrick teaches wherein said step of providing said second encryption key utilizes an "exclusive or" logic operation to combine said first key portion and said fourth key portion to provide said second encryption key (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an "exclusive or" logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. The rational for combining are the same as claim 7 above.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1 and further in view of Kitajima et al. (Kitajima, Patent No.: US 6,823,069 B1) and further in view of Vincent Pub. No.: US 2004/0015953 A1.

As per claim 9, the combination discloses all the subject matter as described above. The combination fail to disclose wherein said initial version of software product and said different version of said initial version of said software product are non-sequential versions.

However Vincent discloses updating required versions out of multiple different versions of software products in non-sequential order (fig. 9 and par. 0071; *updating component B from version 4 to version 6 and updating full component of D and E to version 1 and 2 respectively*).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Vincent within the combination system because it would save time (par. 0015). One would have been motivated to update non-sequential version of software because it would allow a minimal time to download specific software components in contrast to conventional methods of updating software (par. 0015).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1 and further in view of Kitajima et al. (Kitajima, Patent No.: US 6,823,069 B1) and further in view of Mizikovsky Patent No.: US 6,853,729 B1.

Regarding claim 10, the combination discloses all the subject matter as described. The combination fail to teach wherein the second encryption key is non-sequential with said first encryption key. However Mizikovsky teaches an update key which is non-sequential with said first encryption key (col. 8 lines 21-43 and fig. 4; *update key being different from new key...generated in using RAND numbers*).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Mizikovsky within the combination system because it would enhance security. One would have been motivated to incorporate the teachings of updating keys in non-sequential order to prevent unauthorized device from learning encryption keys and perform unauthorized decryption of content.

9. Claims 11-14 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1 and Chan Patent Number: 5,150,407.

Regarding claim 11, Nakamura et al. discloses a method for providing for the security of encryption keys for encryption and decryption of an initial version of a software product provided by a provider to a user of a hardware product (col. 2 lines 26-54), said method comprising:

providing a first encryption key (fig. 1 element 40; *full key/full-length key of N/N bits*);

encrypting the initial version of the software product with said first encryption key to generate an encrypted initial software product (col. 2 lines 26-27 and claim 1; *encrypting data using key of length N*);

splitting said first encryption key into first and second key portions (col. 2 lines 47) by (i) generating a first key portion of said first encryption key (fig. 1 element 30 and col. 5 lines 6; short key/first key/n bits); and (ii) utilizing said first key portion and said first encryption key to calculate a second key portion of said first encryption key such that the combination of said first and second key portions form said first encryption key (col. 5 lines 6-11);

storing said encrypted software product in a further memory means in the hardware product (col. 5 lines 33);

combining said first key portion and said second key portion in the hardware product to provide said first encryption key (col. 5 lines 33-52); and

decrypting said encrypted initial software product with said first encryption key (col. 5 lines 33-52 and claims 1, 6-7).

Merrick fails to disclose the first key portion is independent of information identifying said hardware product. However it is very well known to generate a key from identifying information independent from hardware product. Nakamura et al. discloses generating encryption key 3, and key 1 from password which is independent of identifying information from hardware product (see col. 18 lines 50-61, col. 19 lines 37-59, fig. 12 & 13, claim 11, col. 6 lines 38-39, and col. 3 lines 20-22) and also generating encrypting key based on random number information and encryption key 2 is disclosed on (col. 2 lines 52-59 and col. 14 lines 13-19).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Nakamura et al. within the system of Merrick because they are analogous in data encryption. One would have been motivated to incorporate the teachings of Merrick because it is known at the time of the invention and would generate the key based on key information, and/or password information so the generated key would identify the key or password of the user rather than the hardware name/serial number.

The combination teach storing key N-n in storage unit 26 of the key management system and storing the n bit first key separate from the second key in the user device because it would allow anyone obtaining access to the key management system to potentially decode the encrypted data if n bit first key or any information about first key is stored in the key management system (see Merrick col. 5 lines 17-28) but does not explicitly disclose storing said first key portion in storage means external to the hardware and storing said second key portion separately from said first key portion in a tamper proof memory means in the hardware product.

However Chan teaches encrypting digital data using encryption key, dividing encryption key in to two portions (col. 5 lines 44-45) and storing the portions of the key in two different storage devices (col. 5 lines 45-47, and col. 9 lines 6-14), and combining the portions of the keys in order to decrypt the encrypted digital data (col. 9 lines 28-30).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Chan within the combination system because they are analogous in key generation and data encryption. One would have been motivated to do so for

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secure use of decryption keys and data protection and/or the user cannot access the other portion easily.

Regarding claim 12, the references disclose the method wherein said step of generating a first encryption key utilizes a random number generator to generate said first encryption key (Merrick col. 5 lines 5-16, Nakamura et al. col. 13 lines 51-57, Chan col. 5 lines 39-64).

Regarding claim 13, Merrick discloses the method wherein said step of calculating a second key portion utilizing an “exclusive or” logic operation to combine said first key portion and said first encryption key to calculate said second key portion (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an “exclusive or” logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of exclusive or within the combination system to combine the first encryption key and first key portion because operator exclusive or necessary for combining. One would have been motivated to do so to combine the first splitted portion of the key with the encryption key/decryption key.

Regarding claim 14, Merrick discloses wherein said step of combining said first key portion and said second key portion utilizes an “exclusive or” logic operation performed by said hardware

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product (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an "exclusive or" logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of exclusive or within the combination system to combine the first encryption key and first key portion because operator exclusive or necessary for combining. One would have been motivated to do so to combine the first splitted portion of the key with the encryption key/decryption key.

Regarding claim 28 Nakamura et al. further discloses the method wherein said first key portion is generated independent of information generated in or by said hardware product (see Nakamura et al. col. 18 lines 50-61, col. 19 lines 37-59, fig. 12 & 13, claim 11, col. 6 lines 38-39, and col. 3 lines 20-22). The rational for combining are the same as claim 11 above.

Regarding claim 29 Nakamura et al. further discloses the method wherein said second key portion is generated independent of said hardware product and any information specific to, identifying, or generated in or by said hardware product (see Nakamura et al. col. 18 lines 50-61, col. 19 lines 37-59, fig. 12 & 13, claim 11, col. 6 lines 38-39, and col. 3 lines 20-22). The rational for combining are the same as claim 11 above.

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Regarding claim 30 Nakamura et al. further discloses wherein said first encryption key is generated independent of said hardware product and any information specific to, identifying, or generated in or by said hardware product (Nakamura et al. col. 2 lines 52-59 and col. 14 lines 13-19). The rationale for combining are the same as claim 11 above.

10. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1 and Chan Patent Number: 5,150,407 and further in view of Kitajima et al. (Kitajima, Patent No.: US 6,823,069 B1).

Regarding claim 15, Merrick, Nakamura et al. and Chan teach all the subject matter as described above. In addition the combination discloses the method further enabling security of said first encryption key and providing a second encryption key for encrypting a different version of the initial software product, further comprising:

generating the second encryption key (Merrick fig. 1 element 40; *full key/full-length key of N/N bits*);

encrypting the different version of the initial software product with said second encryption key to provide an encrypted different version of the initial software product (Merrick col. 2 lines 26-27 and claim 1; *encrypting data using key of length N*);

combining said first encryption key and said second encryption key to provide a third key portion (Merrick col. 5 lines 33-52);

installing said third key portion in said tamper proof memory means (Chan col. 5 lines 44-45);

installing said encrypted different version of the initial software product in said further memory means in the hardware product (Merrick col. 5 lines 33);

combining said third key portion and said second key portion to generate a fourth key portion in the hardware product (Merrick col. 5 lines 33-52);

combining said first key portion and said fourth key portion to provide said second encryption key in the hardware product (Merrick col. 5 lines 33-52); and

using said second encryption key in the hardware product to decrypt the encrypted different version of the initial software product (Merrick col. 5 lines 33-52 and claims 1, 6-7).

The rationale for combining are the same as claim 11 above.

Merrick, Nakamura et al. and Chan fail to teach an update of the keys.

However Kitajima discloses dividing encrypting key into a first half portion and a second half portion and periodically updating/changing keys and encryption algorithm to securely protect cryptograms against unauthorized people (col. 11 lines 1-10).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of updating keys within the combination system because it would allow a secure data/message/information transmission (col. 11 lines 1-10). One would have been motivated to update the encryption key and the key portions to enhance security by making the keys unpredictable.

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Regarding claim 16, references discloses the method wherein said step of generating a second encryption key utilizes a ransom number generator to generate said first encryption key (Merrick col. 5 lines 5-16, Nakamura et al. col. 13 lines 51-57, Chan col. 5 lines 39-64).

Regarding claim 17, Merrick teaches the method wherein said step of combining said first encryption key and said second encryption key to generate a third key portion utilizes an "exclusive or" logic operation (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an "exclusive or" logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of exclusive or within the combination system to combine said first encryption key and said second encryption key and generate said third key portion because operator exclusive or necessary for combining. One would have been motivated to do so to combine first encryption key and said second encryption key.

Regarding claim 18, Merrick teaches wherein said step of combining said first key portion and the fourth key portion to provide said second encryption key utilizes an "exclusive or" logic operation (claim 7; a combiner combining first and second key portions to generate a full length key). It is obvious that the combiner used in Merrick is an "exclusive or" logic. But the examiner provides reference Rasmussen et al. Patent Number: 5,301,247 that discloses xoring first portion

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of key (DEK1) with second portion (DEK2) of key to form encryption key (DEK) using an exclusive or operator see, fig. 4 element 144 and col. 8 lines 40-48. The rationale for combining are the same as claim 17 above.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1 and Chan Patent Number: 5,150,407 and further in view of Vincent Pub. No.: US 2004/0015953 A1.

Regarding claim 19, the combination discloses all the subject matter as described. The combination fail to disclose wherein said initial version of software product and said different version of said initial version of said software product are non-sequential versions.

However Vincent discloses updating required versions out of multiple different versions of software products in non-sequential order (fig. 9 and par. 0071; *updating component B from version 4 to version 6 and updating full component of D and E to version 1 and 2 respectively*).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Vincent within the combination system because it would save time (par. 0015). One would have been motivated to update non-sequential version of software because it would allow a minimal time to download specific software components in contrast to conventional methods of updating software (par. 0015).

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merrick USPN 5,416,841 in view of Nakamura et al. USPN 6,457,126 B1 and Chan Patent Number: 5,150,407 and further in view of Mizikovsky Patent No.: US 6,853,729 B1.

Regarding claim 20, the combination discloses all the subject matter as described. The combination fail to teach wherein the second encryption key is non-sequential with said first encryption key. However Mizikovsky teaches an update key which is non-sequential with said first encryption key (col. 8 lines 21-43 and fig. 4; *update key being different from new key...generated in using RAND numbers*).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Mizikovsky within the combination system because it would enhance security. One would have been motivated to incorporate the teachings of updating keys in non-sequential order to prevent unauthorized device from learning encryption keys and perform unauthorized decryption of content.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Pub. No.: US 2001/0001876 A1: *Morgan et al. discloses a well-known splitting key method i.e. splitting key in to parts.*

Please see PTO 892 form for further prior art of record.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867.

The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

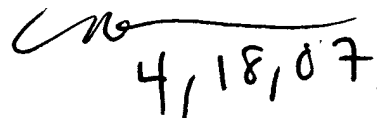
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser R. Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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April 17, 2007

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